

REMARKS

Favorable reconsideration of this application, as presently amended and in light of the following, discussion is respectfully requested.

Claims 1-5, 8, 10, 12-20, 22, 24 and 26 are pending in the present application. Claims 1, 12, 14 and 15 are amended; and Claim 6 is canceled without prejudice or disclaimer by the present amendment. Support for the amended claims can be found at least at ¶¶ [0101-0102] and [0117-0119] of the published version of the originally filed specification (U.S. 2004/0082364). No new matter is presented.

In the Office Action, Claims 1-6, 8, 10, 12-20, 22, 24 and 26 are rejected under 35 U.S.C. § 103(a) as unpatentable over Forslow (U.S. 6,937,566) in view of Immonen et al. (U.S. 7,010,305, herein Immonen), Hodgkinson et al. (U.S. 7,209,437, herein Hodgkinson), Yoshida et al. (U.S. 2002/0068588, herein Yoshida) and Shimonishi (U.S. 6,173,331).

In response to the above-noted rejection under 35 U.S.C. § 103, Applicant respectfully submits that amended independent Claims 1, 14 and 15 recite novel features clearly not taught or rendered obvious by the applied references.

Independent Claim 1, for example, is amended to recite, in part, a base station comprising:

an attaching unit configured to attach a request value to a packet received from a core network based on a quality of service (QoS) class for the packet in the core network, wherein the attaching includes attaching, to the received packet, a request value for communication quality corresponding to a high priority class as a target value for communication quality used by the base station to perform transmission control when the QoS class for the received packet is a high priority class, and not attaching a request value to the received packet when the QoS class for the received packet is a low priority class ...

a plurality of quantitative guarantee type transmission buffers configured to store quantitative guarantee type packets awaiting transmission; and

a measurement unit configured to measure a transmission rate of the quantitative guarantee type packets transmitted from the quantitative guarantee type transmission buffers for each request value for each

quantitative guarantee type packet in a unit time by the radio resource assignment unit as an average transfer speed, wherein
the transmission order controller *compares the request value with the average transfer speed and controls the transmission order based on a result of the comparison, and*
the packet classification unit *restrains storing a quantitative guarantee type packet in one of the plurality of quantitative guarantee type transmission buffers when the average transfer speed is more than a corresponding request value.*

Independent Claims 14 and 15, while directed to alternative embodiments, recite features similar to those noted above. Accordingly, the remarks and arguments presented below are applicable to each of amended independent Claims 1, 14 and 15.

As an initial matter, Applicant respectfully submits that none of the applied references teach or suggest “*an attaching unit configured to attach a request value to a packet received from a core network based on a quality of service (QoS) class for the packet in the core network ...*”, as recited in amended independent Claim 1.

In rejecting claimed features directed to the “attaching unit” in Claim 12, p. 9 of the Office Action relies on col. 12, l. 12 – col. 13, l. 27 of Immonen. These cited portions of Immonen, however, merely describe a process of classifying packets, and fail to teach or suggest any features directed to attaching a request value to a received packet, as recited in amended independent Claim 1.

Col. 12, l. 61 – col. 13, l. 18 of Immonen describes that when a downlink transmission with a specific QoS is requested by the terminal 31, each downlink IP packet is processed in an IP entity of a PAC 34 to determine the correct WLAN QoS class to be used for the IP packets. More specifically, the header of each IP packet is processed, and based on the header information and the IP packet filtering information the packet is scheduled for a certain WLAN QoS class. After the PAC 34 has classified the IP packets, the QoS class, e.g. real-time or non-real-time, is decided. The PAC 34 marks the downlink IP packets according

to the classification using 802.1p bits. The p-bits are a part of the Ethernet frame header and can therefore be used for marking different QoS classes at the Ethernet level.

This cited portion of Immonen, therefore, appears to describe a process of setting particular bits in an Ethernet frame to indicate a QoS service of the packet, but this marking is not the same as “*attaching a request value to a packet received from a core network based on a quality of service (QoS) class for the packet in the core network*”, as recited in amended independent Claim 1. More specifically, the marking described in Immonen is not a request value ... as a target value for communication quality, as recited in Claim 1. Instead, the marking in Immonen merely indicates a QoS class of the packet and does not indicate a specific ***request value***, as recited in amended independent Claim 1.

Claim 1 is further amended to recite that the base station includes “a measurement unit configured to measure a transmission rate of the quantitative guarantee type packets transmitted from the quantitative guarantee type transmission buffers *for each request value for each quantitative guarantee type packet in a unit time by the radio resource assignment unit as an average transfer speed*, wherein the transmission order controller *compares the request value with the average transfer speed and controls the transmission order based on a result of the comparison*, and the packet classification unit *restrains storing a quantitative guarantee type packet in one of the plurality of quantitative guarantee type transmission buffers when the average transfer speed is more than a corresponding request value*.”

In the previous response, independent Claims 1 and 14-15 were amended to recite that the base station includes “a measurement unit configured to measure communication quality for each request value” and “the packet classification unit restrains storing a quantitative guarantee type packet in a transmission buffer for storing the packets, when a measured value by the measurement unit is more than a corresponding request value.”

At p. 7, the Office Action concedes that the previously cited references fail to disclose the above-noted feature, and relies on col. 1, ll. 56-60 of Shimonishi in an attempt to remedy this deficiency.

This portion of Shimonishi describes a process of “calculating a value of delivery instant according to a minimum bandwidth assigned to the detected virtual connection so that vacancy of the transmission medium is reduced to a minimum if the received packet were delivered from the buffer onto the transmission medium at the instant of the calculated value.” Shimonishi then describes that this calculated value is compared with a decision threshold assigned to the connection, and the received packet is stored in the buffer if the calculated value is smaller than the decision threshold or discarded if the calculated value is greater than the decision threshold.

Shimonishi, therefore, appears to describe a process of discarding packets based on a measure corresponding to a particular virtual connection, but fails to teach or suggest that this process includes measuring a transmission rate of the quantitative guarantee type packets transmitted from the quantitative guarantee type transmission buffers *for each request value for each quantitative guarantee type packet in a unit time by the radio resource assignment unit as an average transfer speed*, as recited in amended independent Claim 1.

Shimonishi further fails to teach or suggest the claimed features of “*comparing the request value with the average transfer speed and controlling the transmission order based on a result of the comparison*” or “*restraining storing a quantitative guarantee type packet in one of the plurality of quantitative guarantee type transmission buffers when the average transfer speed is more than a corresponding request value*”, which are also features required by amended independent Claim 1.

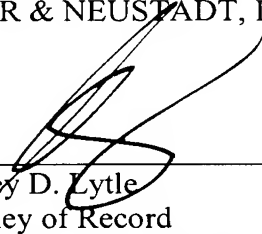
Moreover, none of Forslow, Hodgkinson nor Yoshida remedies the above-noted deficiencies of Immonen and

Accordingly, for at least the reasons discussed above, Applicant respectfully requests that the rejection of Claims 1, 14 and 15 (and the claims that depend therefrom) under 35 U.S.C. § 103 be withdrawn.

Consequently, in view of the present amendment and in light of the foregoing comments, it is respectfully submitted that the invention defined by Claims 1-5, 8, 10, 12-20, 22, 24 and 26 is patentably distinguishing over the applied references. The present application is therefore believed to be in condition for allowance and an early and favorable reconsideration of the application is therefore requested.

Respectfully submitted,

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